

ABSTRACT

An apparatus for function testing rack and pinion systems having a linear servo motor. A single actuator provides force to both ends of the rack and a linear motor to provide resistive force to the rack. The linear motor is used to apply the required forces. In a preferred embodiment, the actuator is a generally "U" shaped structure mounted onto a linear motor stage. A force transducer is placed at each end of the generally "U" shaped structure between the structure and the rack to monitor the force being applied to the rack.